UNITED STATES DISTRICT COURT DISTRICT OF CONNECTICUT

UNITED STATES OF AMERICA,

Plaintiff

CONNECTICUT FUND FOR THE ENVIRONMENT, INC. and BOARD OF WATER COMMISSIONERS FOR THE TOWN OF SOUTHINGTON,

> Plaintiffs-Intervenors

VS.

SOLVENTS RECOVERY SERVICE OF NEW ENGLAND, INC.,

Defendant

CIVIL ACTION NO. H-79-704(JAC)

550349

AFFIDAVIT OF DAVID M. WEBSTER

- 1. My name is David M. Webster. I am employed by the U.S. Environmental Protection Agency (EPA) as a Physical Scientist in the MA/CT/VT Enforcement Section, Superfund Branch, Waste Management Division, Region I. In such capacity, I am a Site Manager responsible for overseeing remedial actions by responsible parties at hazardous waste sites.
- The Solvents Recovery Service of New England, Inc. (SRSNE) site in Southington, Connecticut is among the sites for which I am responsible. I have been the Site Manager for this site since January, 1985.
- My duties as Site Manager for the SRSNE site include ensuring the proper implementation by SRSNE of the Consent Decree between EPA and SRSNE entered by this Court on February 23, 1983, and providing information to EPA officials concerning technical issues which arise during implementation of the Consent Decree. I have personal knowledge of the following facts.
- 4. Paragraph 8.A. of the Consent Decree requires SRSNE to abate and contain groundwater pollution at and in the immediate vicinity of the SRSNE facility by constructing and operating a multi-point shallow well system, as close as possible to the eastern and part of the southern property boundaries of the

SRSNE facility. The purpose of this system is to prevent the off-site migration of subsurface contamination. The Consent Decree requires that the system extend its cone of influence off-site to the maximum practicable extent.

- 5. Pursuant to Paragraph 8. B., SRSNE was required to submit to EPA final engineering designs and specifications for a groundwater recovery system which would accomplish these goals. These engineering designs were required to include a projection of the expected off-site influence of the system and plans for a monitoring system which would verify the off-site influence of the groundwater recovery system.
- 6. The required engineering designs and specifications were submitted by SRSNE to EPA. A system of 25 shallow groundwater recovery wells were proposed by SRSNE and approved by EPA. The 25 shallow wells were constructed in 1985 near the eastern and part of the southern property boundaries of the SRSNE site.
- 7. In accordance with Paragraph 8. B., SRSNE submitted with the design plans, its projection of the influence of the groundwater recovery system in the form of a drawing of a projected cone of influence. The projected cone of influence surrounds the 25 multi-point wells and extends 100 to 150 feet in all off-site, downgradient directions.
- 8. The hydraulic verification system proposed by SRSNE to monitor whether the projected influence was being attained included the placement of four downgradient verification wells. The proposed locations of three of the downgradient verification wells is on the property of Cianci Construction Corporation, 70 to 90 feet from the shallow wells on the SRSNE property and 10 to 35 feet from Cianci's property boundary with the Boston and Maine Railroad right of way. The proposed location of the fourth downgradient verification well is 50 feet from the shallow wells and 20 feet south of the SRSNE property boundary. It is my understanding that this location is on the property of the Estate of Patrick J. Delahunty.
- 9. The proposed locations of all of the downgradient verification wells are on the periphery of the properties of the Cianci Construction Corporation and the Delahunty Estate. Relative to other portions of these properties, these proposed well locations are far from municipal road access and close to the Boston and Maine railroad right of way.
- 10. EPA approved the hydraulic verification system proposed by SRSNE and described in the preceding two paragraphs.

- A hydraulic verification system such as that proposed by SRSNE and approved by EPA is necessary to verify whether the groundwater recovery system is preventing off-site migration of subsurface contaminants and is extending its cone of influence off-site to the maximum extent practicable. Projections of the expected cone of influence, such as that provided by SRSNE, do not necessarily reflect actual field conditions. projections are derived using analytical methods. to engineering reports prepared by York Wastewater Consultants for SRSNE, their projection was based on estimated values of coefficients of aquifer transmissivity and storage which were assumed to be equal throughout the area's surficial material and bedrock. The projected cone of influence did not include the impact of recharge from precipitiation or the possible presence of outwash deposits in the area.
- 12. During operation of the groundwater recovery system, the actual cone of influence may differ significantly from the projection because of the actual heterogeneity and anisotrophy of the geologic formation and the impacts of precipitation and outwash deposits. Periodic field measurements of the hydraulic head in the off-site area are necessary to verify that the cone of influence extends off-site to the maximum practicable extent. A hydraulic performance verification system satisfies this need.
- Placement of downgradient verification wells in off-site locations such as those proposed by SRSNE and approved by EPA is the most reliable means to verify whether the groundwater recovery system is extending its cone of influence to the maximum extent practicable. Were the verification wells to be placed on the property of SRSNE, it would be necessary to project the off-site cone of influence using analytical techniques rather than relying on actual off-site downgradient field measurements. Such a compromise of the hydraulic performance verification system design would increase the probability that the groundwater recovery system could operate in a manner which allows subsurface contaminants to migrate off-site. It would also increase the likelihood that the groundwater recovery system would not extend its influence offsite to the maximum extent practicable. As a result, there would be less certainty that the objectives of the Consent Decree would be satisfied.

Signed under				perjury	based	upon	personal
knowledge, i	nformation	and belie	f.				

Dated: $\frac{12/31/85}{}$

Sworn and subscribed to before me this 31st day of December, 1985.